FIG. 1

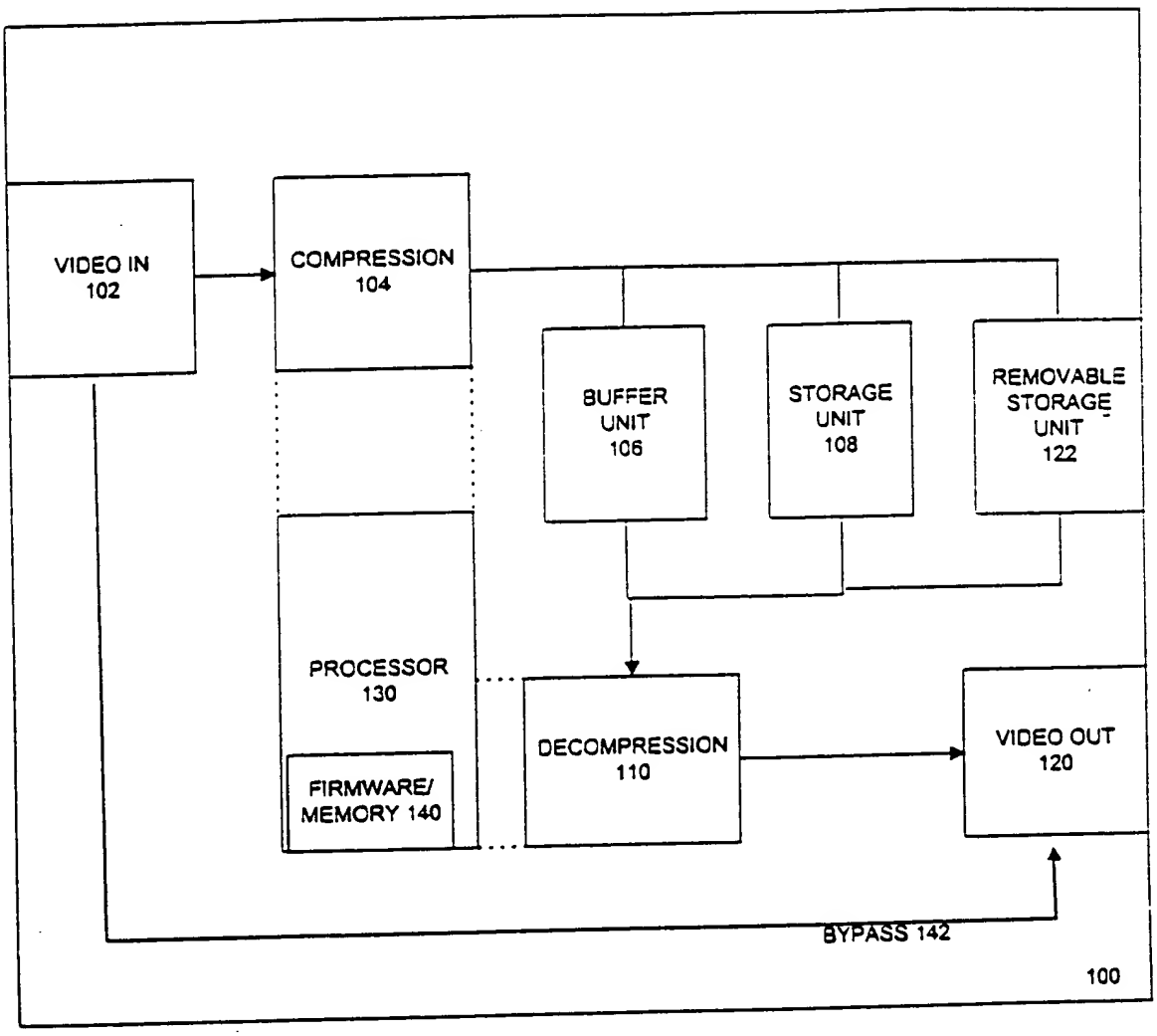

VIDEO IN
102
COMPRESSION
104
BUFFER
UNIT
106
STORAGE
UNIT
108
REMOVABLE
STORAGE
UNIT
122
PROCESSOR
130
FIRMWARE/
MEMORY 140
DECOMPRESSION
110
VIDEO OUT
120
BYPASS 142
100

FIG. 2

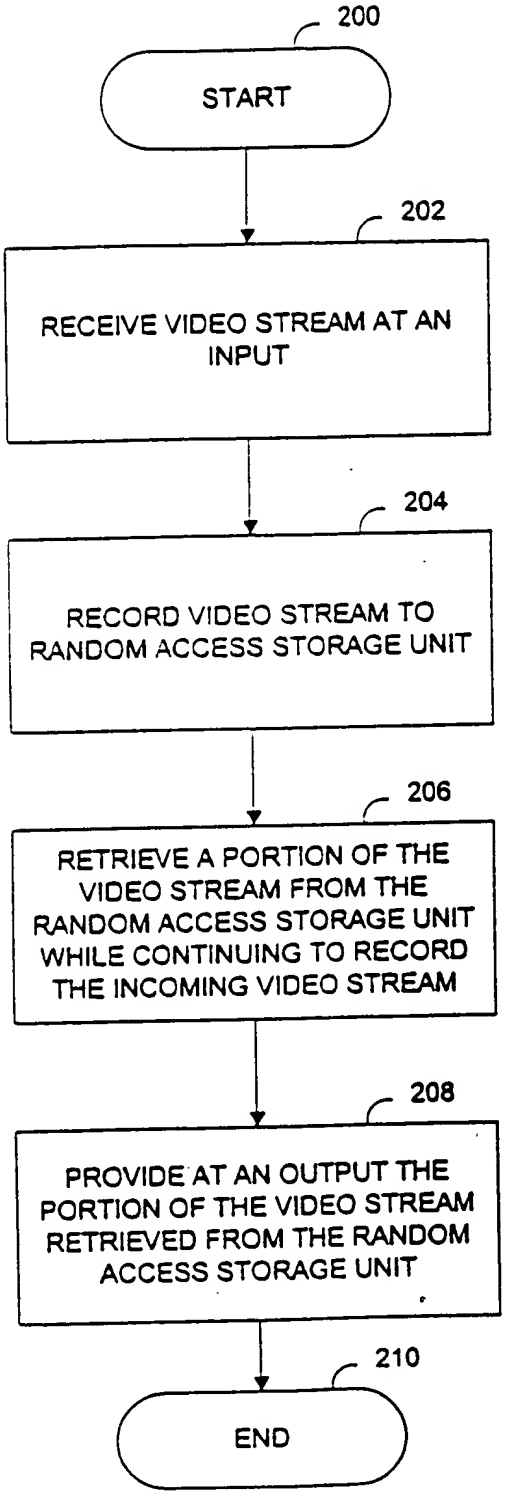
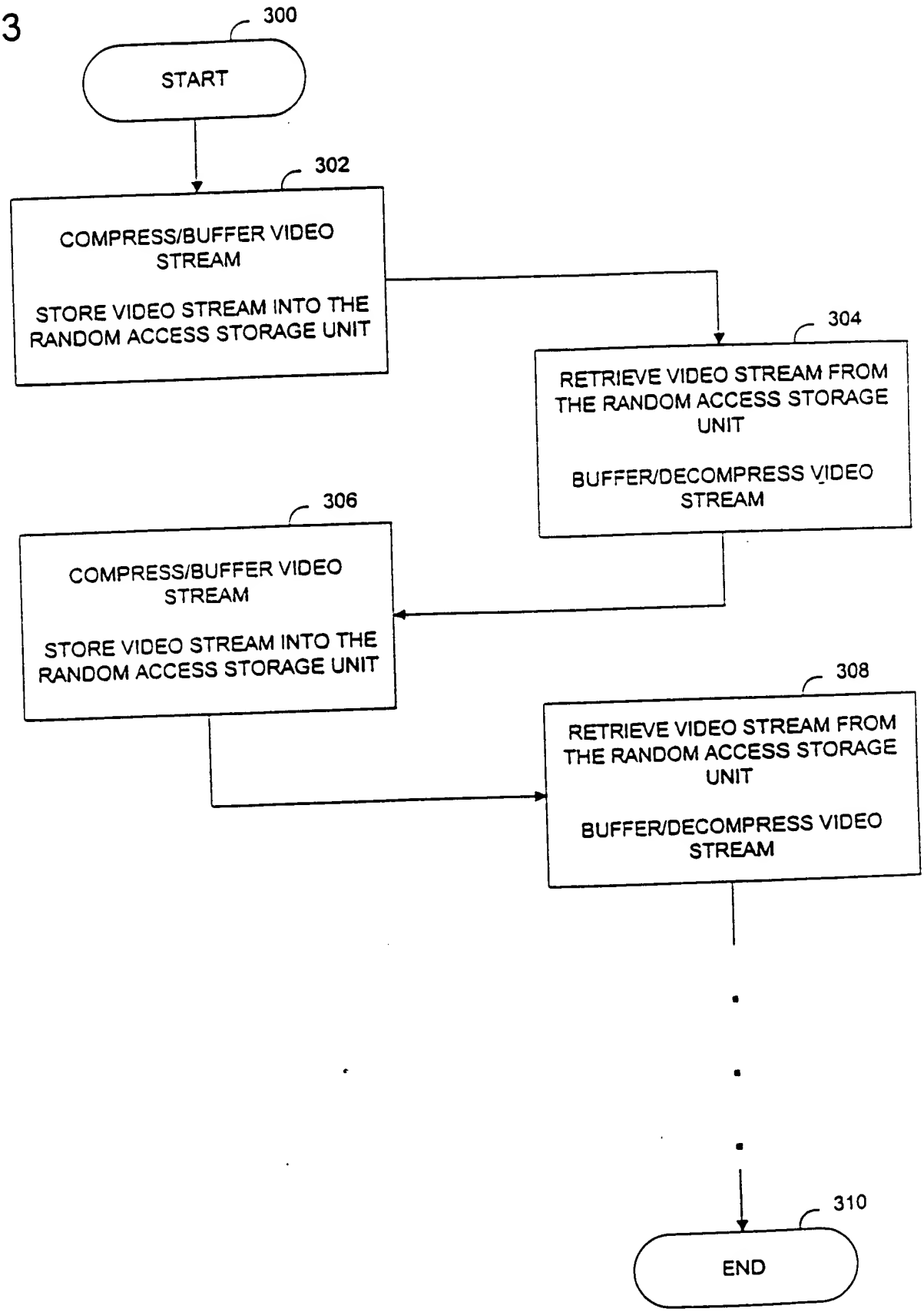

200
START
202
RECEIVE VIDEO STREAM AT AN INPUT
204
RECORD VIDEO STREAM TO RANDOM ACCESS STORAGE UNIT
206
RETRIEVE A PORTION OF THE VIDEO STREAM FROM THE RANDOM ACCESS STORAGE UNIT WHILE CONTINUING TO RECORD THE INCOMING VIDEO STREAM
208
PROVIDE AT AN OUTPUT THE PORTION OF THE VIDEO STREAM RETRIEVED FROM THE RANDOM ACCESS STORAGE UNIT
210
END

FIG. 3



0 5 2 3 5 4 5 - 4 2 0 3 0 5

FIG. 4

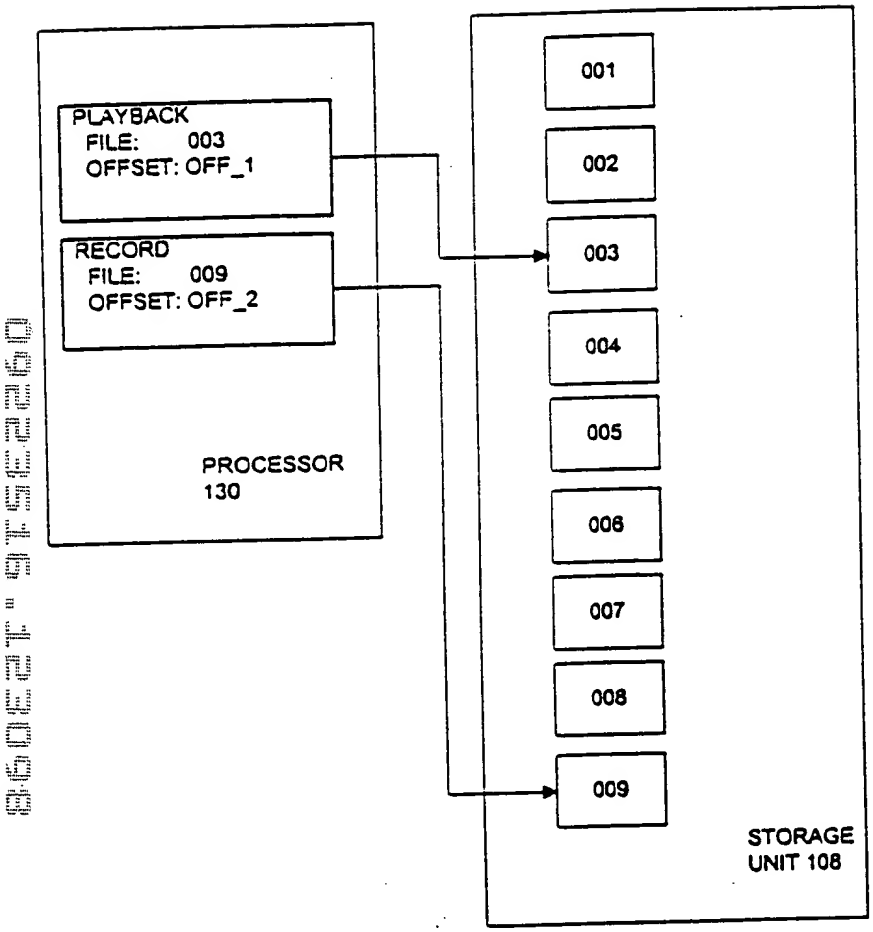

PLAYBACK
FILE: 003
OFFSET: OFF_1
RECORD
FILE: 009
OFFSET: OFF_2
PROCESSOR
130
001
002
003
004
005
006
007
008
009
STORAGE
UNIT 108

FIG. 5

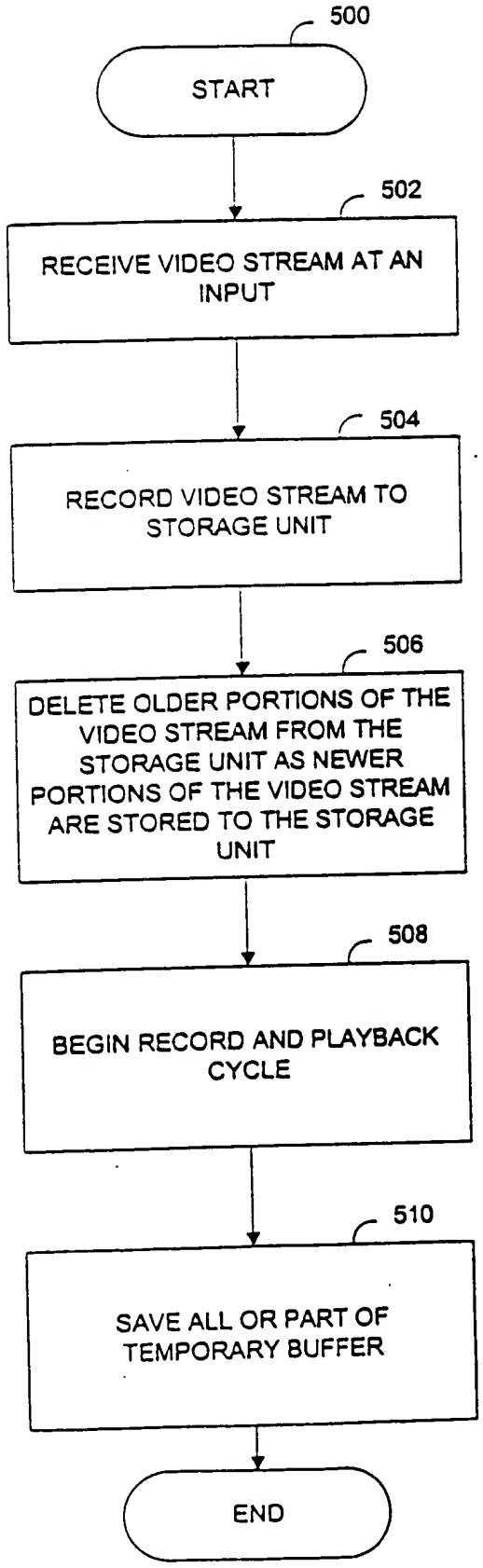

500
START
502
RECEIVE VIDEO STREAM AT AN INPUT
504
RECORD VIDEO STREAM TO STORAGE UNIT
506
DELETE OLDER PORTIONS OF THE VIDEO STREAM FROM THE STORAGE UNIT AS NEWER PORTIONS OF THE VIDEO STREAM ARE STORED TO THE STORAGE UNIT
508
BEGIN RECORD AND PLAYBACK CYCLE
510
SAVE ALL OR PART OF TEMPORARY BUFFER
END

FIG. 6

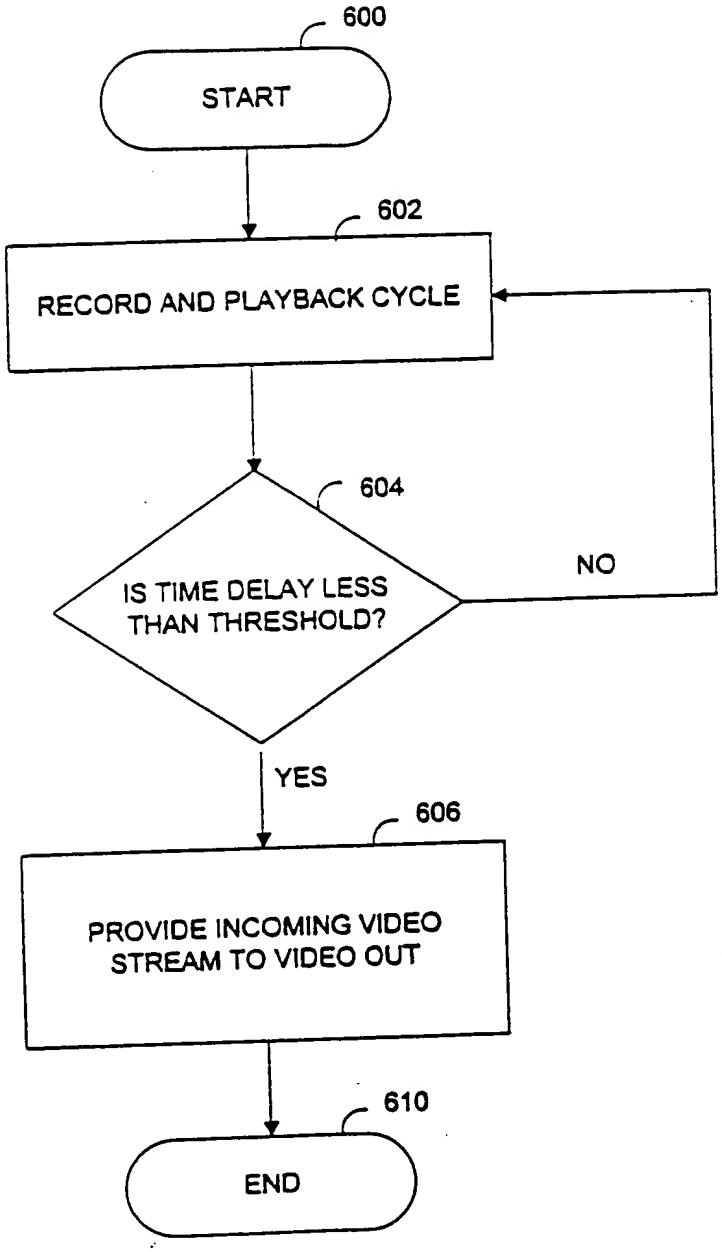
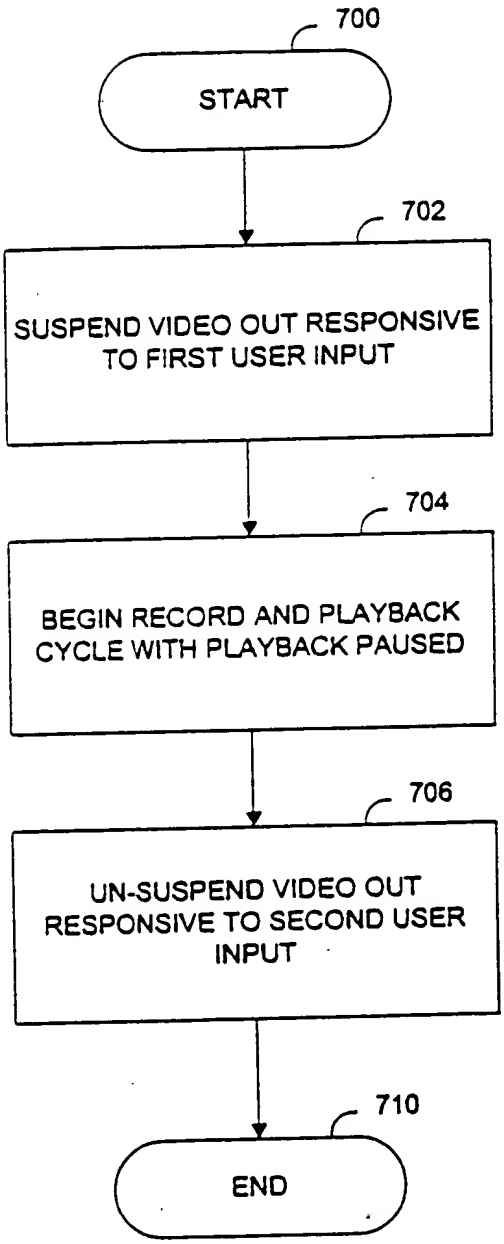
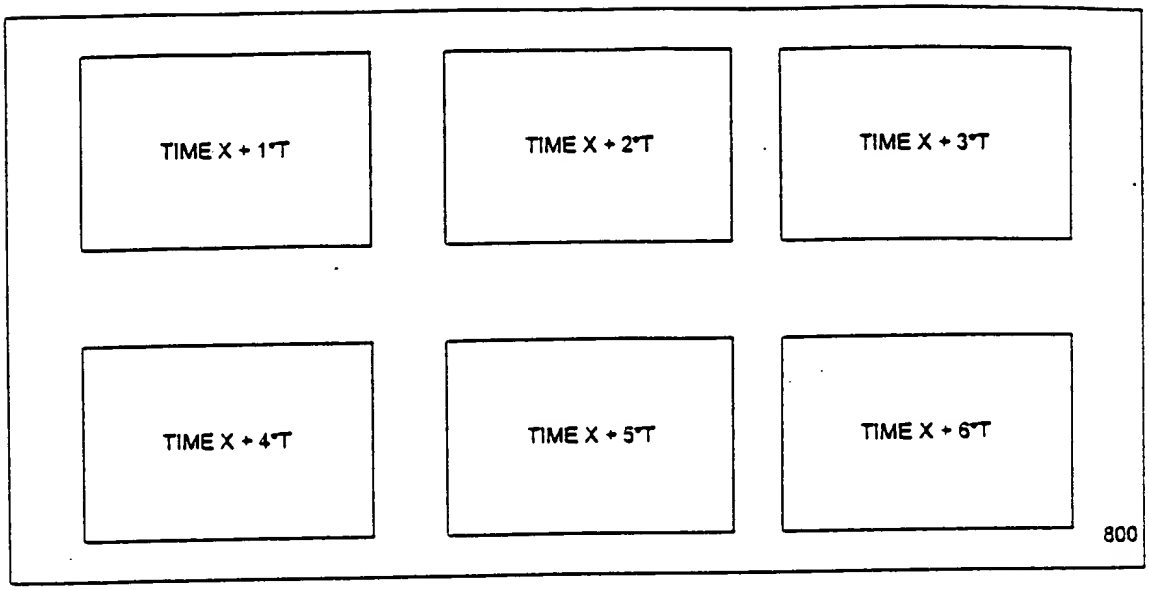

600
START
602
RECORD AND PLAYBACK CYCLE
604
IS TIME DELAY LESS THAN THRESHOLD?
NO
YES
606
PROVIDE INCOMING VIDEO STREAM TO VIDEO OUT
610
END

FIG. 7



Document1.pdf

FIG. 8



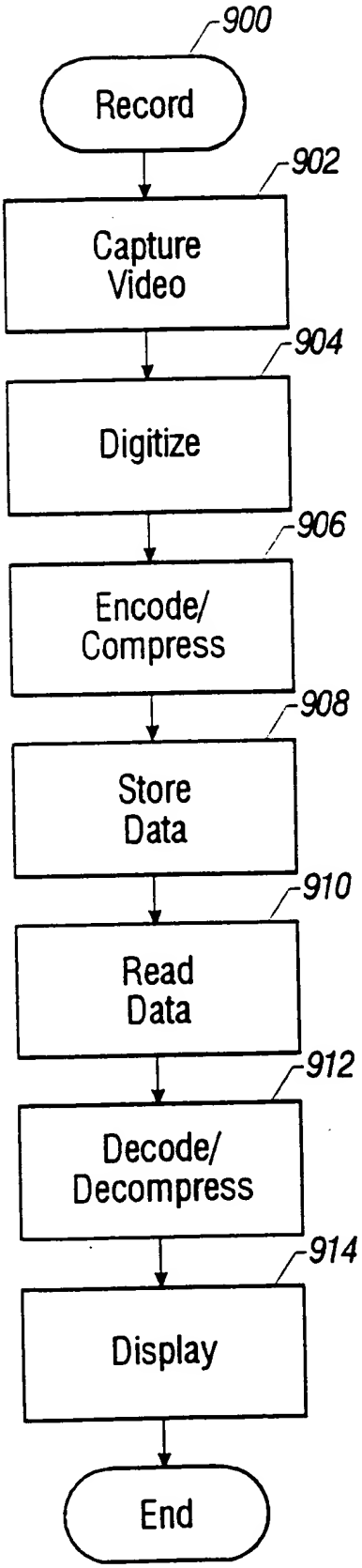

900
Record
902
Capture Video
904
Digitize
906
Encode/ Compress
908
Store Data
910
Read Data
912
Decode/ Decompress
914
Display
End

FIG. 9

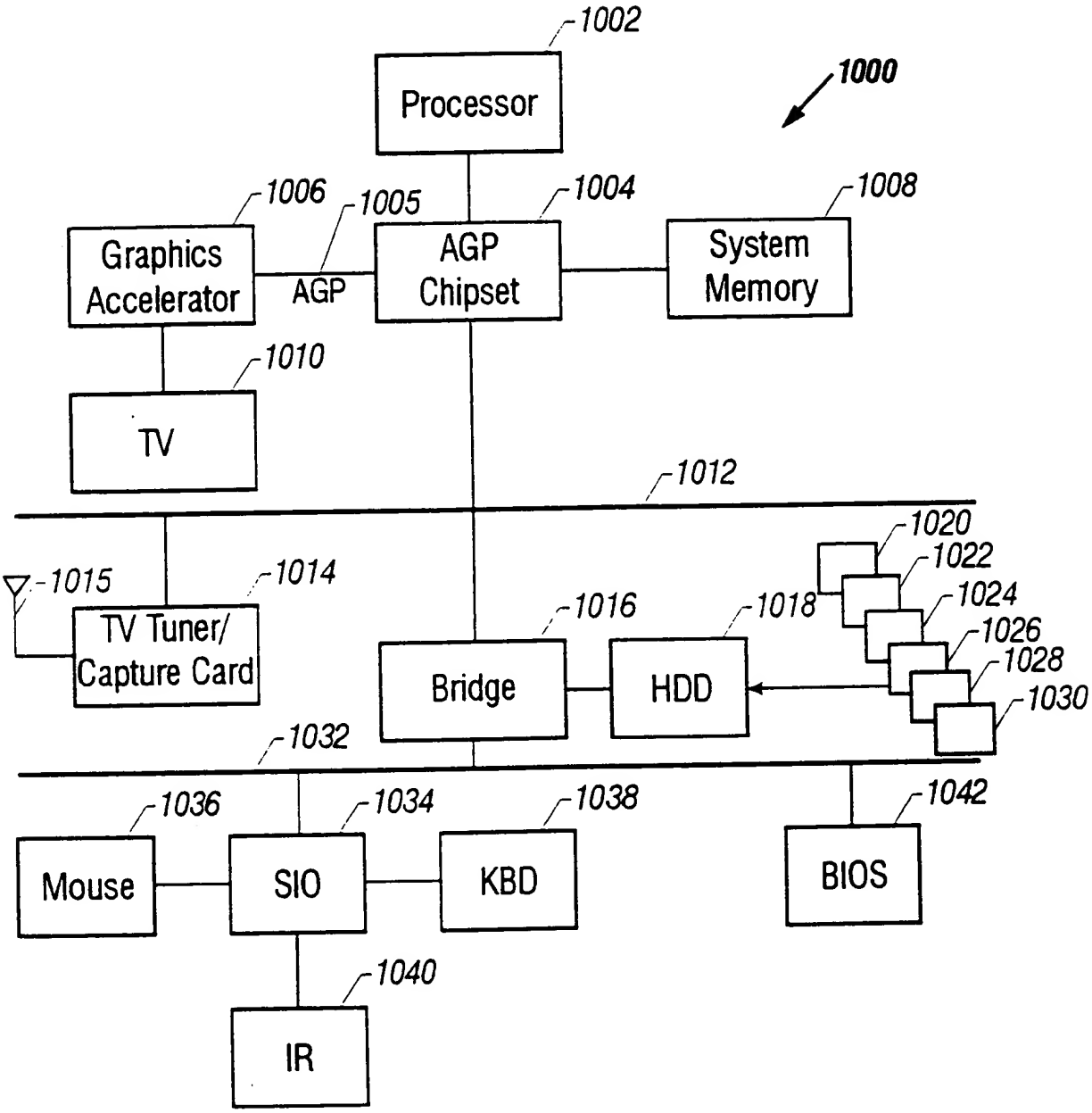

1002
Processor
1000
1006
1005
1004
1008
Graphics Accelerator
AGP
AGP Chipset
System Memory
1010
TV
1012
1020
1022
1024
1026
1028
1030
1015
1014
TV Tuner/ Capture Card
1016
1018
Bridge
HDD
1032
1036
1034
1038
1042
Mouse
SIO
KBD
BIOS
1040
IR

FIG. 10

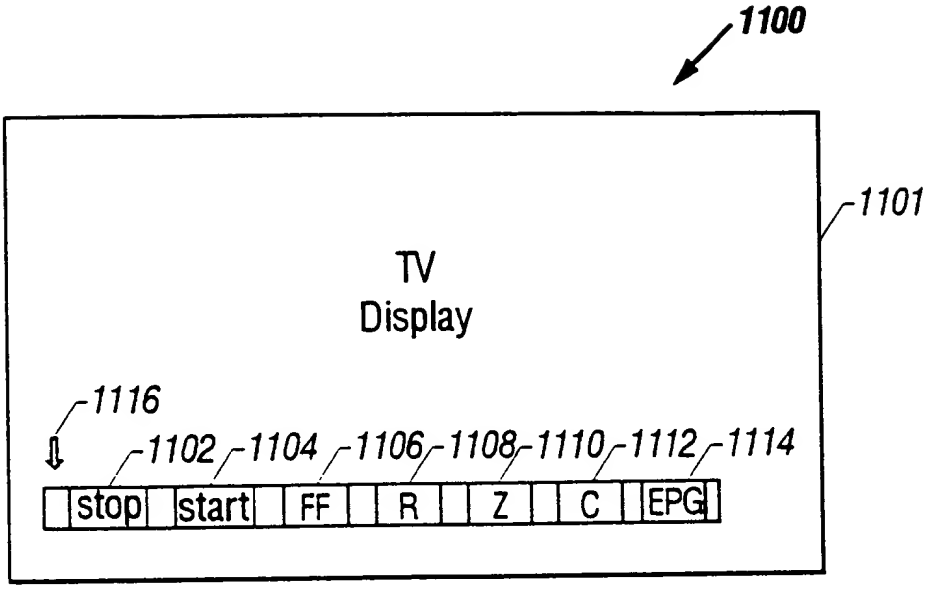

1100
1101
TV
Display
1116
1102
1104
1106
1108
1110
1112
1114
stop
start
FF
R
Z
C
EPG

FIG. 11

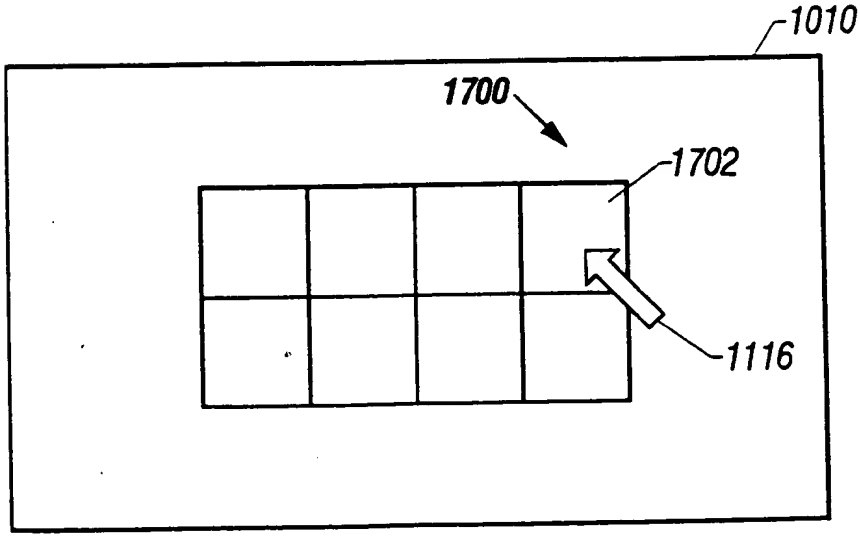

1010
1700
1702
1116

FIG. 17

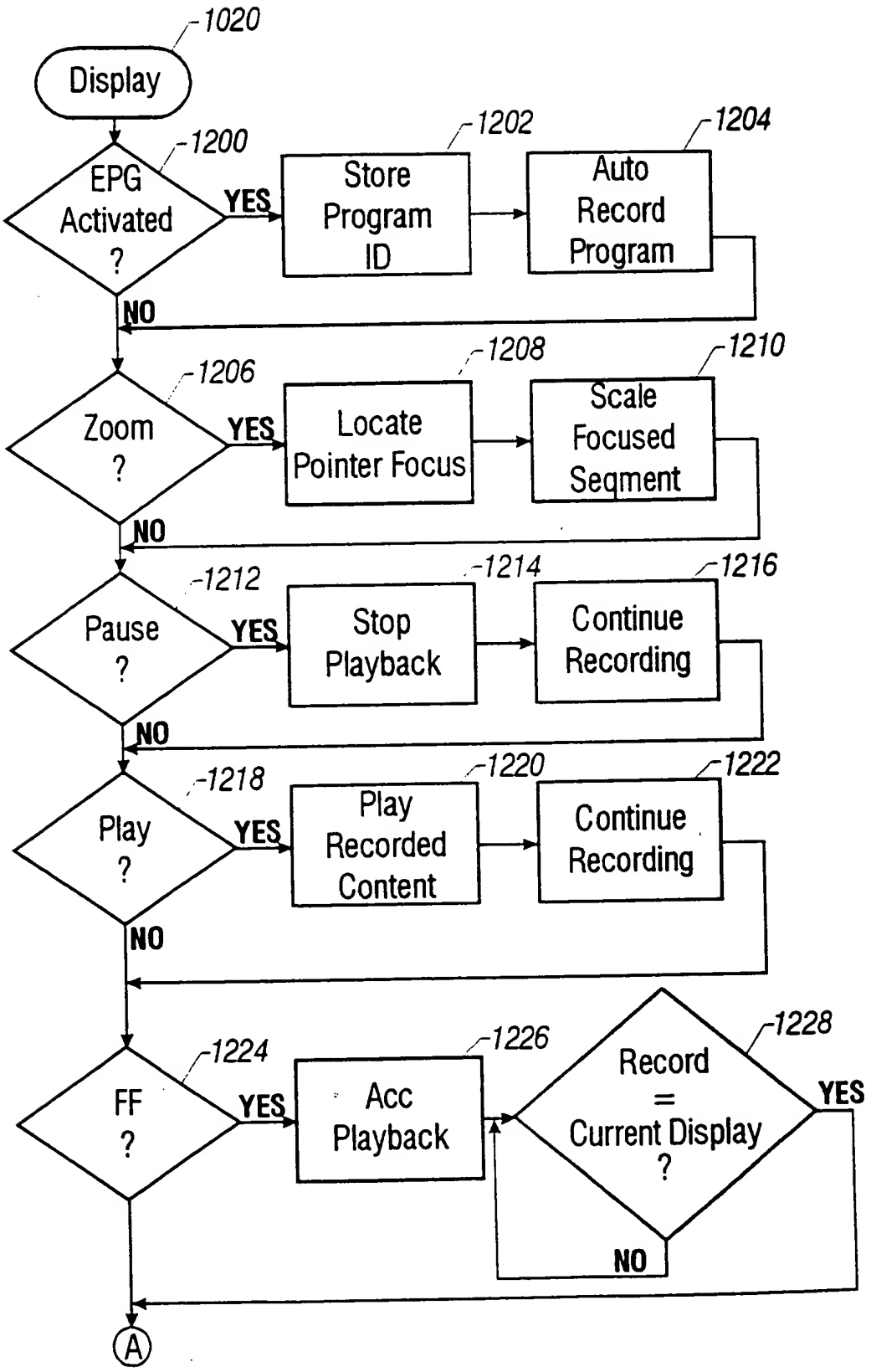

1020
Display
1200
EPG Activated ?
YES
1202
Store Program ID
1204
Auto Record Program
NO
1206
Zoom ?
YES
1208
Locate Pointer Focus
1210
Scale Focused Segment
NO
1212
Pause ?
YES
1214
Stop Playback
1216
Continue Recording
NO
1218
Play ?
YES
1220
Play Recorded Content
1222
Continue Recording
NO
1224
FF ?
YES
1226
Acc Playback
1228
Record = Current Display ?
YES
NO
A

FIG. 12

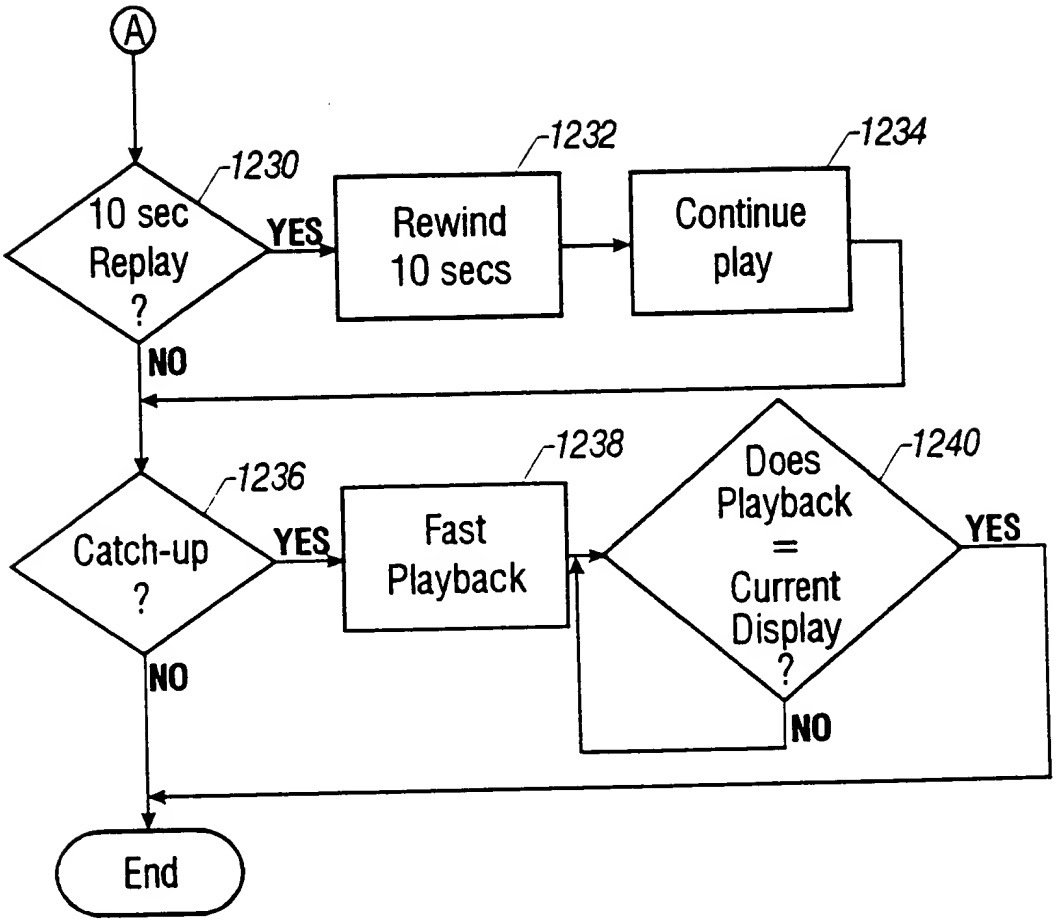

A
1230
10 sec Replay ?
YES
1232
Rewind 10 secs
1234
Continue play
NO
1236
Catch-up ?
YES
1238
Fast Playback
1240
Does Playback = Current Display ?
YES
NO
NO
End

FIG. 12A

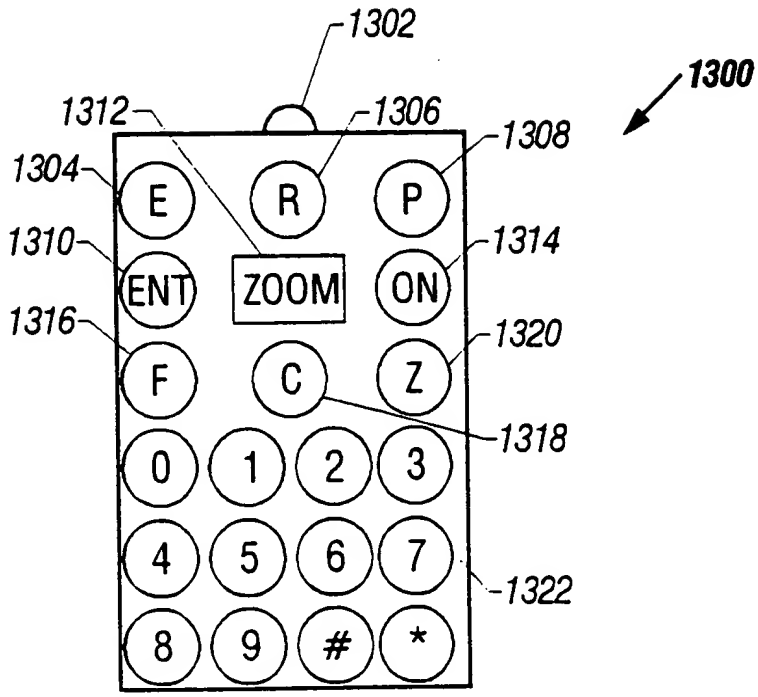

1300
1302
1312
1306
1308
1304
E
R
P
1310
1314
ENT
ZOOM
ON
1316
1320
F
C
Z
1318
0
1
2
3
4
5
6
7
1322
8
9
#
*

FIG. 13

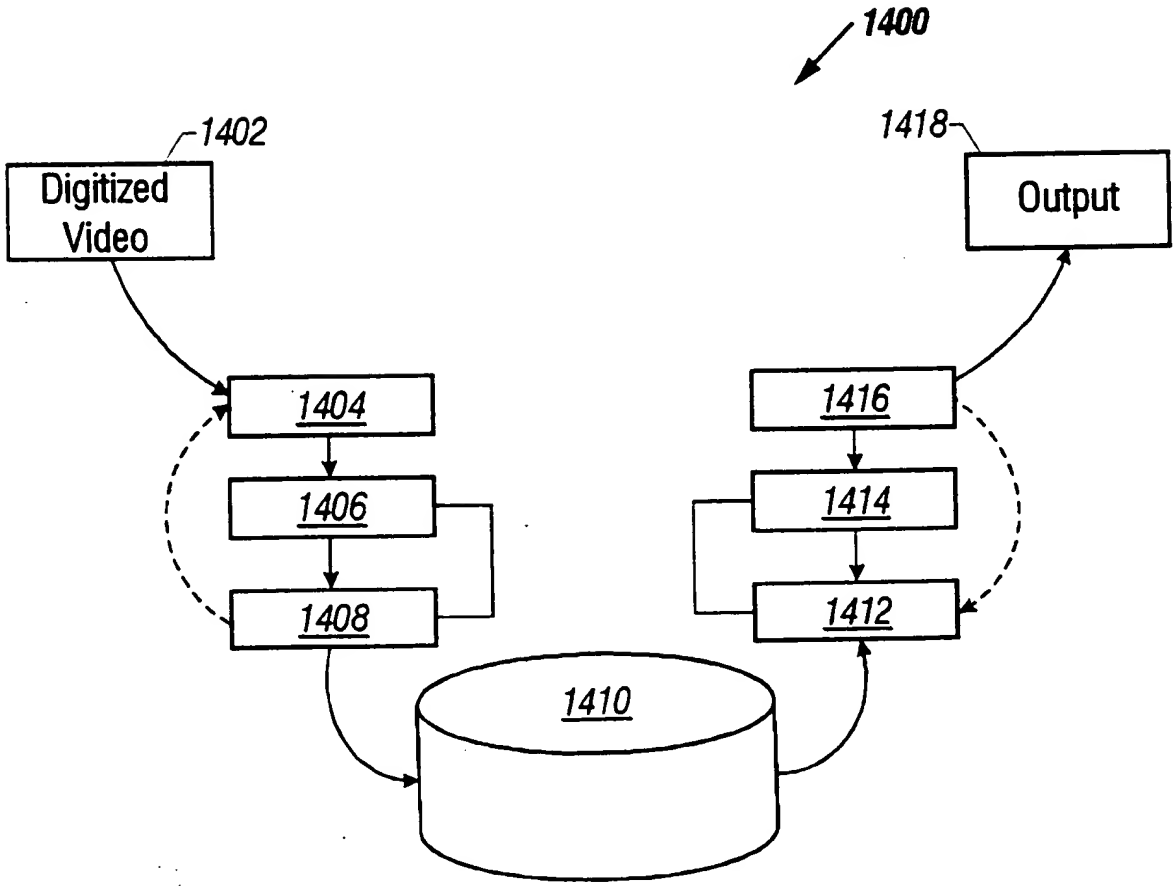

1400
1402
Digitized Video
1418
Output
1404
1406
1408
1410
1416
1414
1412

FIG. 14

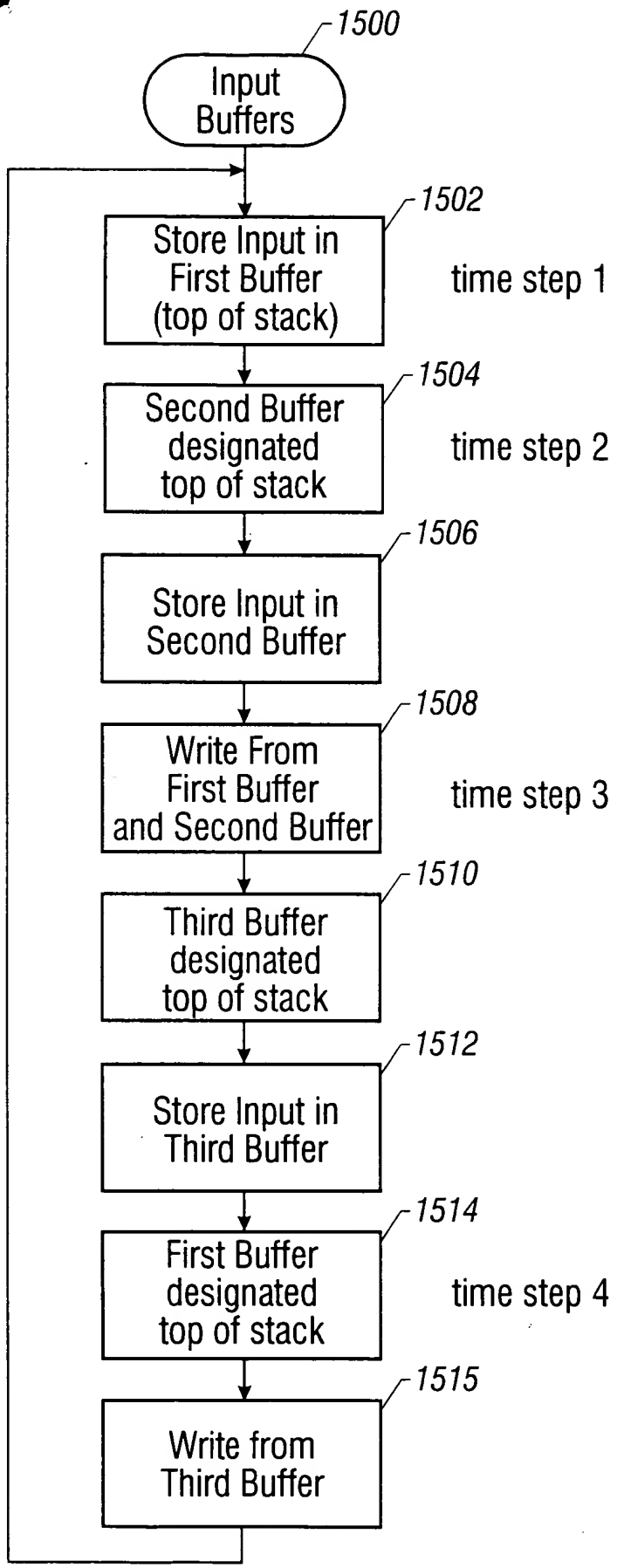

1500
Input Buffers
1502
Store Input in First Buffer (top of stack)
time step 1
1504
Second Buffer designated top of stack
time step 2
1506
Store Input in Second Buffer
1508
Write From First Buffer and Second Buffer
time step 3
1510
Third Buffer designated top of stack
1512
Store Input in Third Buffer
1514
First Buffer designated top of stack
time step 4
1515
Write from Third Buffer

FIG. 15

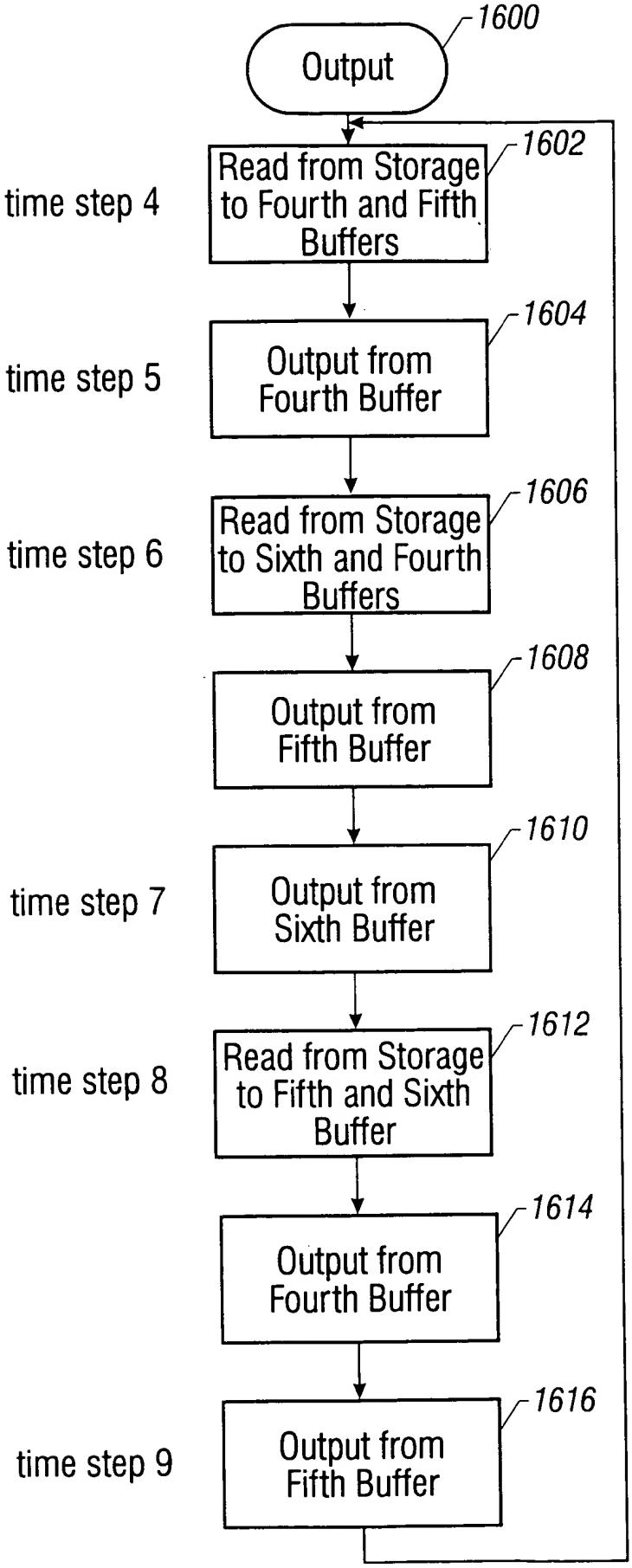

1600
Output
1602
Read from Storage to Fourth and Fifth Buffers
time step 4
1604
Output from Fourth Buffer
time step 5
1606
Read from Storage to Sixth and Fourth Buffers
time step 6
1608
Output from Fifth Buffer
1610
Output from Sixth Buffer
time step 7
1612
Read from Storage to Fifth and Sixth Buffer
time step 8
1614
Output from Fourth Buffer
1616
Output from Fifth Buffer
time step 9

FIG. 16

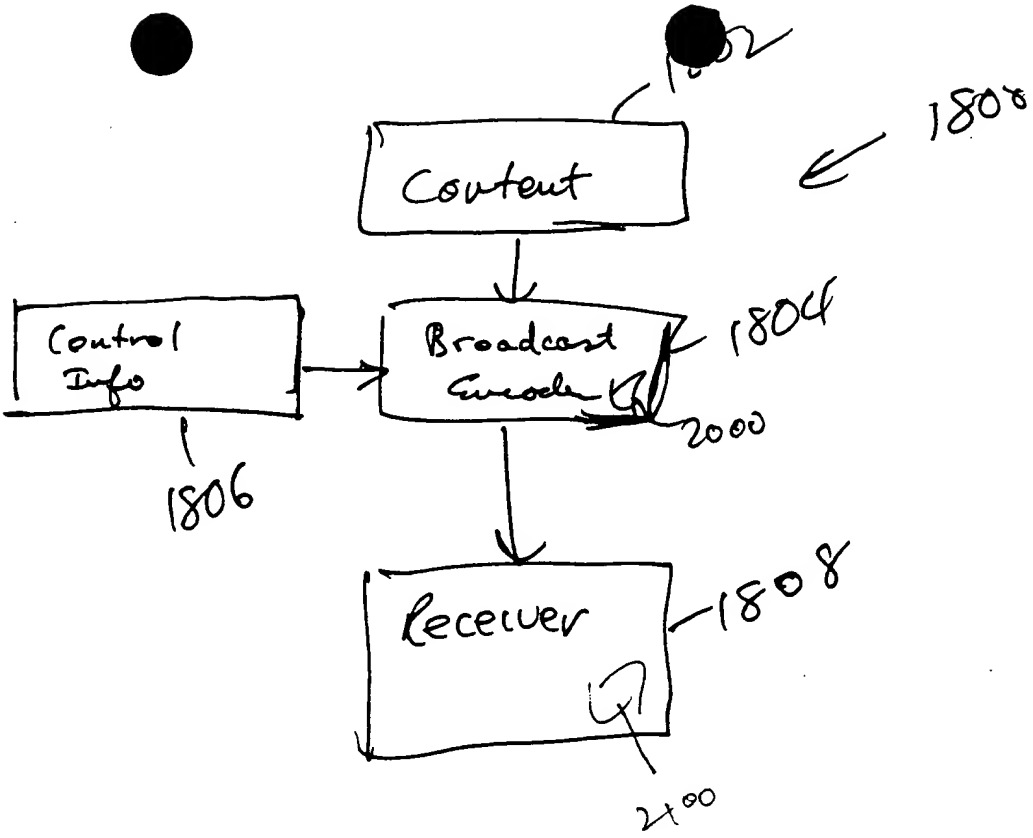

1802
1808
Content
Control Info
Broadcast Encoder
1804
2000
1806
Receiver
1808
2400

FIG 18

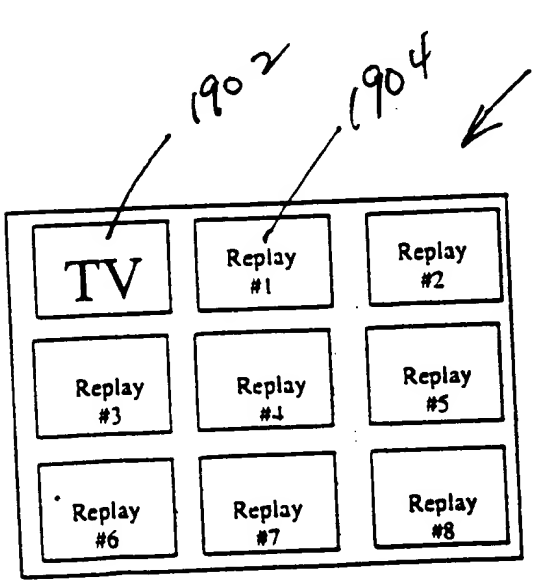

1900
1902
1904
TV
Replay #1
Replay #2
Replay #3
Replay #4
Replay #5
Replay #6
Replay #7
Replay #8

FIG 19

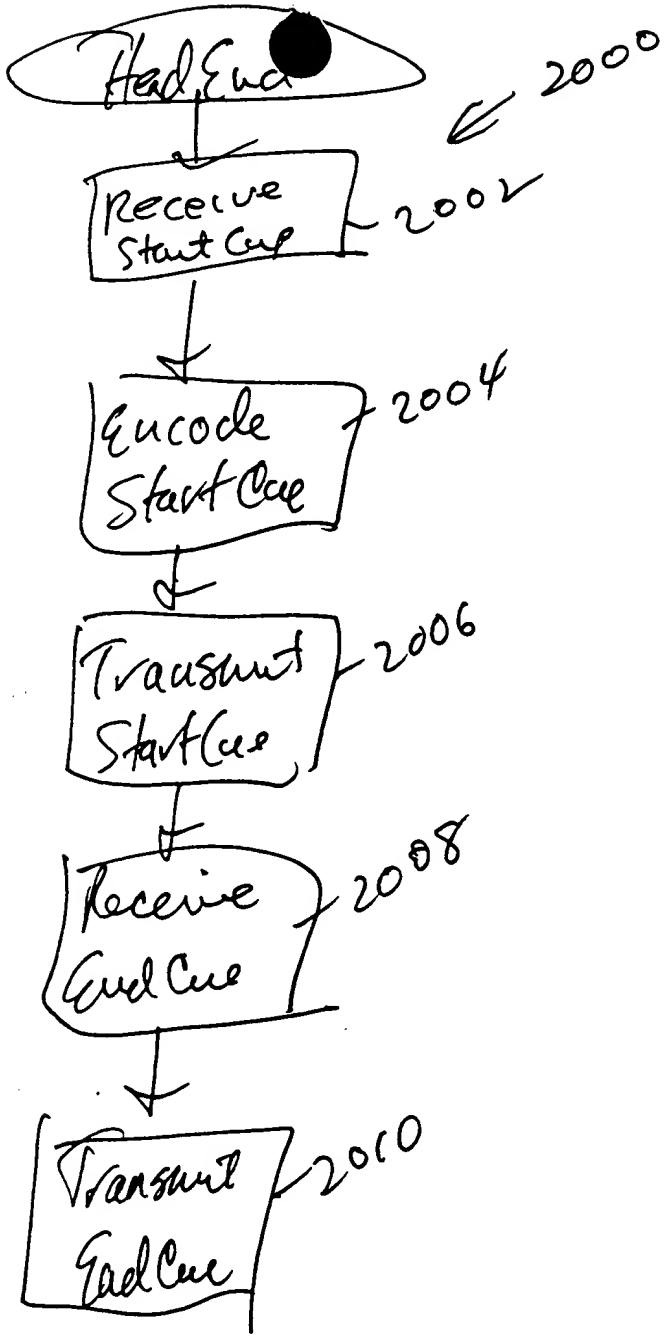


Fig 20

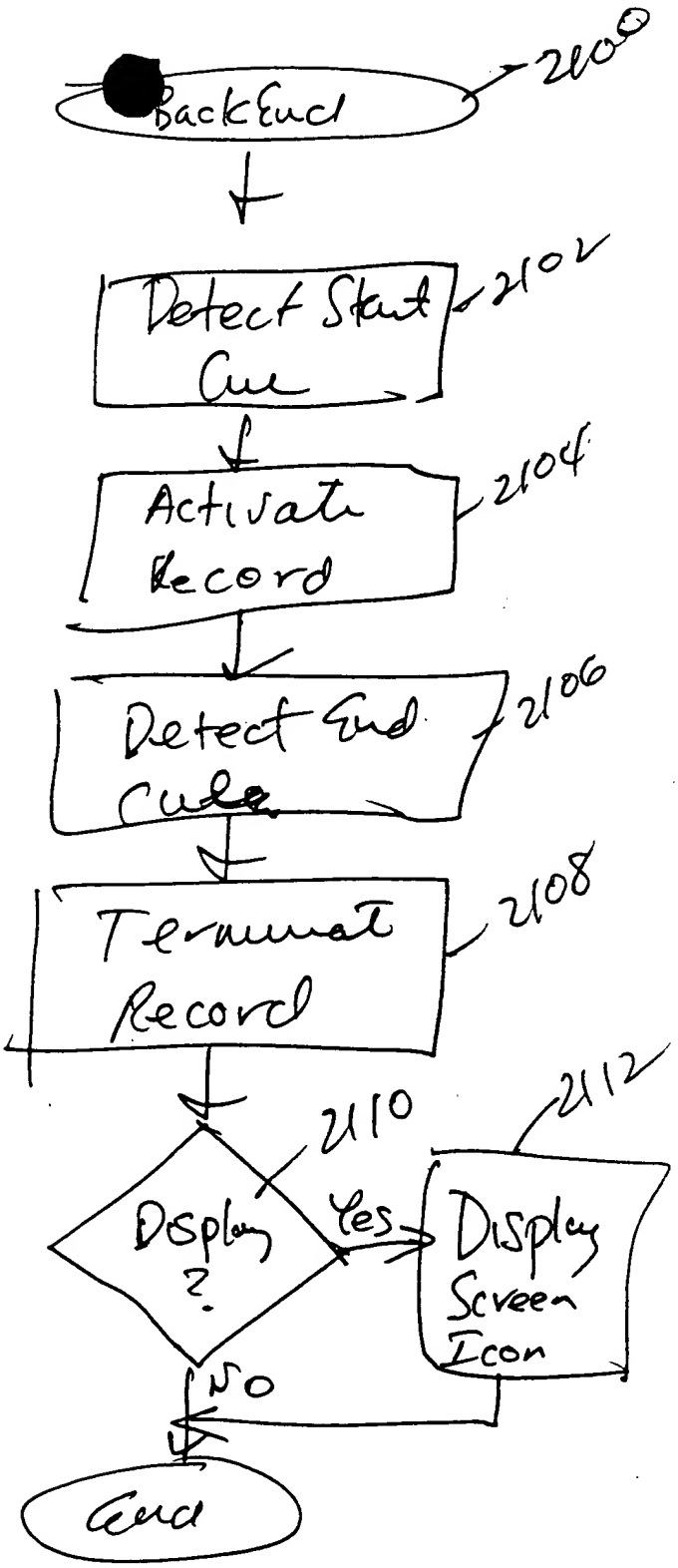


Fig 21

09355-1-US-Specification